

Claims

[c1] We claim as our invention:

1. An iron-type golf club head comprising:
a body including a front wall having a ball-striking surface, and the body further including a rear surface having an external rear cavity formed therein, the rear surface including an upper portion and a lower portion, the upper portion being separated from the lower portion by the external rear cavity and at least one groove, the lower portion of the rear surface having a notch formed therein, the notch communicating with the external rear cavity.

[c2] 2. The iron-type golf club head according to claim 1, wherein the at least one groove extends from the external rear cavity toward a heel end of the club head.

[c3] 3. The iron-type golf club head according to claim 1, wherein at least one groove includes a first groove extending from the external rear cavity toward a heel end of the club head, and a second groove extending from the external rear cavity toward a toe end of the club head.

- [c4] 4. The iron-type golf club head according to claim 1, wherein the at least one groove has a width of approximately 0.040 inch.
- [c5] 5. The iron-type golf club head according to claim 1, wherein the lower portion of the rear surface extends further rearward than the upper portion of the rear surface.
- [c6] 6. The iron-type golf club head according to claim 5, wherein lower portion of the rear surface extends at least approximately 0.035 inch rearward of the upper portion of the rear surface.
- [c7] 7. The iron-type golf club head according to claim 1, wherein the body includes an undercut recess along at least a portion of the external rear cavity.
- [c8] 8. The iron-type golf club head according to claim 1, wherein the body is composed of a material selected from the group consisting of steel, titanium, titanium alloy, zirconium and zirconium alloy.
- [c9] 9. The iron golf club head according to claim 1, wherein the club head has a moment of inertia I_{xx} through the center of gravity of at least 2200 g-cm^2 and a moment of inertia I_{zz} through the center of gravity of at least 2100 g-cm^2 .

- [c10] 10. An iron-type golf club head comprising:
a body composed of a material selected from the group including stainless steel, titanium and titanium alloy, the body including a front wall having a ball-striking surface, the body further including a rear surface having an external rear cavity formed therein, the rear surface including an upper portion and a lower portion, the lower portion having a notch formed therein, the notch communicating with the external rear cavity,
wherein the upper portion of the rear surface is separated from the lower portion by the external rear cavity, a first groove and a second groove, the first groove extending from the external rear cavity toward a heel end, and the second groove extending from the external rear cavity toward a toe end.
- [c11] 11. The iron-type golf club head according to claim 10, wherein each of the first and second grooves has a width of approximately 0.040 inch.
- [c12] 12. The iron-type golf club head according to claim 10, wherein the lower portion of the rear surface extends further rearward than the upper portion of the rear surface.
- [c13] 13. The iron-type golf club head according to claim 12,

wherein lower portion of the rear surface extends at least approximately 0.035 inch rearward of the upper portion of the rear surface.

[c14] 14. The iron-type golf club head according to claim 10, wherein the body includes an undercut recess along at least a portion of the external rear cavity.

[c15] 15. An iron-type golf club head comprising:
a body including a front wall having a ball-striking surface, the body further including a rear surface having an external rear cavity formed therein, the rear surface including an upper portion and a lower portion, the lower portion extending further rearward than the upper portion and having a notch formed therein, the notch communicating with the external rear cavity,
wherein the upper portion of the rear surface is separated from the lower portion by the external rear cavity,
a first groove and a second groove, the first groove extending from the external rear cavity toward a heel end, and the second groove extending from the external rear cavity toward a toe end.

[c16] 16. The iron-type golf club head according to claim 15, wherein each of the first and second grooves has a width of approximately 0.040 inch.

[c17] 17. The iron-type golf club head according to claim 15, wherein lower portion of the rear surface extends at least approximately 0.035 inch rearward of the upper portion of the rear surface.